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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/661,636	09/13/2000	Abraham Rabindranath Matthews	1384.002US1	7671

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EXAMINER

KAPADIA, MILAN S

ART UNIT	PAPER NUMBER
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2143

DATE MAILED: 11/18/2003

5

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/661,636

Applicant(s)

MATTHEWS ET AL.

Examiner

Milan S Kapadia

Art Unit

2143

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 September 2000.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4. 6) ☐ Other: _____

Art Unit: 2143

DETAILED ACTION

Notice to Applicant

1. This communication is in response to the application filed 13 September 2000. Claims 1-20 are pending.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-3, 5, 7-9, 11, 13-15, and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kessler et al. (5,841,973) in view of Passint et al. (5,581,705).

- (A) As per claim 1, Kessler discloses a method of packet routing, comprising:
connecting a plurality of processors in a network (Kessler; abstract);
assigning a unique processor identifier (PEID) to each of the processors (Kessler; abstract);
routing a first packet to a first one of the processors across the network,
wherein each such packet includes a -PEID value corresponding to a PEID of one of

Art Unit: 2143

the processors, and wherein the routing to the first processor is based on the PEID value in the first packet (Kessler; abstract and col. 7, lines 23-36);

Kessler fails to expressly teach establishing a plurality of objects in the first processor, assigning a logical queue identifier (LQID) to a first one of the objects in the first processor, wherein each packet also includes an LQID value corresponding to an LQID of one of the objects and routing the first packet to the first object based on the LQID value in the first packet. However, this feature is old and well known in the art, as evidenced by Passint's teachings with regards to establishing a plurality of objects in the first processor (Passint; abstract), assigning a logical queue identifier (LQID) to a first one of the objects in the first processor (Passint; abstract; the Examiner interprets the "opcode" as a form of "LQID"), wherein each packet also includes an LQID value corresponding to an LQID of one of the objects and routing the first packet to the first object based on the LQID value in the first packet (Passint; abstract). It is respectfully submitted, that it would have been obvious, to one having ordinary skill in the art at the time the invention was made, to expand the system taught by Kessler with Passint's teaching with regards to this limitation, with the motivation of enabling a messaging facility that can be used to accomplish a remote action or initiate a remote procedure (Passint; col. 2, lines 46-47).

(B) As per claims 2 and 3, the combined system of Kessler and Passint collectively fail to expressly teach assigning a plurality of different LQIDs to the first object and routing a plurality of packets each having a different LQID, to the first object based on the LQID value in each respective packet. However, since the combined system of Kessler and Passint collectively teach that the addressing scheme used is customizable (Passint; col. 2, lines 23-38), it is respectfully

Art Unit: 2143

submitted, that it would have been obvious, to one having ordinary skill in the art at the time the invention was made, to expand the system taught by Kessler and Passint to assign a plurality of different LQIDs to the first object and route a plurality of packets each having a different LQID, to the first object based on the LQID value in each respective packet, with the motivation of defining the defining the desired opcode convention (Passint; col. 2, lines 45-53).

(C) As per claim 5, the combined system of Kessler and Passint collectively fail to expressly teach establishing the first LQID with the first object to be used for point-to-point data traffic and establishing a second LQID with the first object to be used for shortcut data traffic. However, since the combined system of Kessler and Passint collectively teach that the addressing scheme used is customizable and also teach using different messaging facilities for different types of packets (Passint; col. 2, lines 23-38 and col. 5, lines 37-40), it is respectfully submitted, that it would have been obvious, to one having ordinary skill in the art at the time the invention was made, to expand the system taught by Kessler and Passint to establish the first LQID with the first object to be used for point-to-point data traffic and establishing a second LQID with the first object to be used for shortcut data traffic, with the motivation of defining the defining the desired opcode convention that would enable the different messaging facilities (Passint; col. 2, lines 45-53).

(D) System claims 7-9, 11, 13-15, and 17 repeat the subject matter of method claims 1-3 and 5, respectively, as a set of apparatus elements rather than a series of steps. As the underlying processes of claims 1-3 and 5 have been shown to be fully disclosed by the teachings of Kessler

Art Unit: 2143

and Passint in the above rejections of claims 1-3 and 5, it is readily apparent that the system disclosed by Kessler and Passint include the apparatus to perform these functions. As such, these limitations are rejected for the same reasons given above for method claims 1-3 and 5, and incorporated herein.

4. Claims 4, 10, and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kessler et al. (5,841,973), and Passint et al. (5,581,705) as applied to claim 1 above and further in view of Stracke (6,047,330).

(A) As per claim 4, the combined system of Kessler and Passint collectively fail to expressly teach wherein an object is associated with a virtual router. However, this feature is old and well known in the art, as evidenced by Stracke's teachings with regards to this limitation. In particular Ham teaches the use of a virtual router in a packet routing system (Stracke; abstract). It is respectfully submitted, that it would have been obvious, to one having ordinary skill in the art at the time the invention was made, to expand the collective system taught by Kessler and Passint with Stracke's teaching with regards to this limitation, with the motivation of creating a more efficient routing system (Stracke; col. 1, lines 12-17).

(B) System claims 10 and 16 repeat the subject matter of method claim 4 as a set of apparatus elements rather than a series of steps. As the underlying processes of claim 4 has been shown to be fully disclosed by the teachings of Kessler and Passint in the above rejections of claim 4, it is readily apparent that the system disclosed by Kessler and Passint include the apparatus to

Art Unit: 2143

perform these functions. As such, these limitations are rejected for the same reasons given above for method claim 4, and incorporated herein.

5. Claims 6, 12, and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kessler et al. (5,841,973) and Passint et al. (5,581,705) as applied to claim 1 above and further in view of Allen et al. (4,667,287).

(A) As per claim 6, the combined system of Kessler and Passint collectively fail to expressly teach wherein the network is configured in a ring topology. However, this feature is old and well known in the art, as evidenced by Allen's teachings with regards to wherein the network is configured in a ring topology (Allen; abstract). It is respectfully submitted, that it would have been obvious, to one having ordinary skill in the art at the time the invention was made, to expand the collective system taught by Kessler and Passint with Allen's teaching with regards to this limitation, with the motivation of enabling more rapid and efficient communication (Allen; col. 1, lines 35-38).

(B) System claims 12 and 18 repeat the subject matter of method claim 6 as a set of apparatus elements rather than a series of steps. As the underlying processes of claim 6 has been shown to be fully disclosed by the teachings of Kessler and Passint in the above rejections of claim 6, it is readily apparent that the system disclosed by Kessler and Passint include the apparatus to perform these functions. As such, these limitations are rejected for the same reasons given above for method claim 6, and incorporated herein.

6. Claims 19 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kessler et al. (5,841,973) and Passint et al. (5,581,705) as applied to claim 13 above and further in view of Kapustka et al. (Kapustka, K., et al., « CoSine Communications Moves VPNs 'Into the Cloud' with Leading Managed IP Service Delivery Platform, » CoSine Communications http://www.cosinecom.com/news/pr_5_24.html, 5p., May 24, 1999).

(A) As per claims 19 and 20, the combined system of Kessler and Passint collectively fail to expressly teach a services management system that provides changeable provisioning of processor capacity among a plurality of customers and that provides firewall protection for each of a plurality of customers. However, this feature is old and well known in the art, as evidenced by Kapustka's teachings with regards to a services management system that provides changeable provisioning of processor capacity among a plurality of customers and that provides firewall protection for each of a plurality of customers (Kapustka; page 1, paragraphs 1-2 and page 3, paragraph 3). It is respectfully submitted, that it would have been obvious, to one having ordinary skill in the art at the time the invention was made, to expand the collective system taught by Kessler and Passint with Kapustka's teaching with regards to this limitation, with the motivation of providing enabling more efficient scaling of IP services (Kapustka; page 1, paragraph 1).

Conclusion

Art Unit: 2143

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The cited but not applied art teaches method and apparatus for adaptive routing in packet networks (6,260,072); an internetworking system for exchanging packets of information between networks (5,490,252); and a system and method for managing networks addressed via common network addresses (6,175,867).


8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Milan S Kapadia whose telephone number is 703-305-3887. The examiner can normally be reached on Monday through Friday, 8:30 A.M. to 5:00 P.M.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wiley can be reached on 703-308-5221. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9306 for regular communications and 703-872-9327 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-1113.


mk

November 12, 2003


DAVID WILEY
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100